PhytoKeys 46: 73–87 (2015)
doi: 10.3897/phytokeys.46.9069
http://phytokeys.pensoft.net

RESEARCH ARTICLE

A peer-reviewed open-access journal
PhytoKeys
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Changes in the circumscription of *Deprea* (Physalideae, Solanaceae): thirty two new combinations

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Academic editor: *Sandra Knapp* | Received 4 December 2014 | Accepted 10 Febtuary 2015 | Published 27 February 2015

Citation: Deanna R, Leiva González S, Barboza GE (2015) Changes in the circumscription of *Deprea* (Physalideae, Solanaceae): thirty two new combinations. PhytoKeys 46: 73–87. doi: 10.3897/phytokeys.46.9069

Abstract

According to the latest phylogenetic and cytogenetic results, *Larnax* and *Deprea* should be merged in order to form a natural group. Consequently, we propose 32 combinations of *Larnax* species names under *Deprea*: *D. abra-patriciae* (S.Leiva & Barboza) S.Leiva & Deanna, **comb. nov.**, *D. altomayoensis* (S.Leiva & Quip.) Barboza & Deanna, **comb. nov.**, *D. andersonii* (N.W.Sawyer) Deanna & S.Leiva, **comb. nov.**, *D. bongaraensis* (S.Leiva) Deanna & Barboza, **comb. nov.**, *D. chotanae* (S.Leiva, Pereyra & Barboza) S.Leiva, **comb. nov.**, *D. darcyana* (N.W.Sawyer) Barboza & S.Leiva, **comb. nov.**, *D. dilloniana* (S.Leiva, Quip. & N.W.Sawyer) Barboza, **comb. nov.**, *D. grandiflora* (N.W.Sawyer & S.Leiva) Deanna & Barboza, **comb. nov.**, *D. harlingiana* (Hunz. & Barboza) S.Leiva & Deanna, **comb nov.**, *D. hawkesii* (Hunz.) Deanna, **comb. nov.**, *D. kann-rasmussenii* (S.Leiva & Quip.) S.Leiva & Barboza, **comb. nov.**, *D. longipedunculata* (S.Leiva, E.Rodr. & J.Campos) Barboza, **comb. nov.**, *D. lutea* (S.Leiva) Deanna, **comb. nov.**, *D. macasiana* (Deanna, S.Leiva & Barboza) Barboza, **comb. nov.**, *D. maculatifolia* (E.Rodr. & S.Leiva) S. Leiva, **comb. nov.**, *D. nieva* (S.Leiva & N.W.Sawyer) Barboza & Deanna, **comb. nov.**, *D. parviflora* (N.W.Sawyer & S.Leiva) S.Leiva, **comb. nov.**, *D. pedrazae* (S.Leiva & Barboza) Deanna & S.Leiva, **comb. nov.**, *D. peruviana* (Zahlbr.) S.Leiva & Barboza, **comb. nov.**, *D. pilosa* (S.Leiva, E.Rodr. & J.Campos) Deanna, **comb. nov.**, *D. pomacochaensis* (S.Leiva) Barboza, **comb. nov.**, *D. psilophyta* (N.W.Sawyer) S.Leiva & Deanna, **comb. nov.**, *D. pumila* (S.Leiva, Barboza & Deanna) S.Leiva, **comb. nov.**, *D. purpurea* (S.Leiva) Barboza & S.Leiva, **comb. nov.**, *D. purpureocarpa* (S.Leiva, Deanna & Barboza) Deanna, **comb. nov.**, *D. sachapapa* (Hunz.) S.Leiva & Deanna, **comb. nov.**, *D. sagasteguii* (S.Leiva, Quip. & N. W.Sawyer) Barboza, **comb. nov.**, *D. sawyeriana* (S.Leiva, E.Rodr. & J.Campos) S.Leiva, **comb. nov.**, *D. schjellerupiae* (S.Leiva & Quip.) Barboza & Deanna, **comb. nov.**, *D. steyermarkii* (Hunz.) S.Leiva & Barboza, **comb. nov.**, *D. toledoana* (Barboza & S.Leiva) Barboza, **comb. nov.**, and *D. vasquezii* (S.Leiva, E.Rodr. & J.Campos) Deanna, **comb. nov.**

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Keywords
Deprea, new combinations, Solanaceae, *Larnax*

Introduction

Larnax Miers and *Deprea* Raf. are two closely related genera of Physalideae tribe (Solanaceae) that include 35 and 10 species, respectively. Both genera are restricted to the neotropics mainly inhabiting pre-montane and montane cloud forest from Bolivia to Costa Rica. Both *Larnax* and *Deprea* include species ranging from herbs to small trees with funnel-shaped to stellate corollas, but always with accrescent fruiting calyces tightly or loosely enclosing the berries (Sawyer 2005, Deanna et al. 2014a). The main centre of diversity for both genera is Peru and Ecuador (Leiva González et al. 2008, Deanna et al. 2014a, Jørgensen and León-Yánez 1999). Only one taxon extends north into Central America [*L. sylvarum* subsp. *sylvarum* (Standl. & C.V.Morton) N.W.Sawyer, Sawyer 2001] and one species is found at the south of their range in Bolivia [*L. subtriflora* (Ruiz & Pav.) Miers, Leiva González et al. 2013].

Deprea and *Larnax* are interesting for their chemical and medicinal value (Cardona et al. 2005, Misico et al. 2011, Casero et al. 2015), but also for their controversial circumscription and position within the Physalideae tribe (Olmstead et al. 2008, Särkinen et al. 2013, Carrizo García et al. submitted). Various authors have transferred species between the two genera for many years (Miers 1849, D'Arcy 1973, 1993, Sawyer 2001, Leiva González et al. 2005) and redefined their limits (Hunziker 2001, Sawyer 2005). Sawyer (2005) differentiated *Deprea* and *Larnax* based on six characters (filament base expansion, filament length, filament adnation, anther length, corolla shape, and pollen surface texture) according to morphological cladistic work, although some characters overlap in the two genera. Moreover, Sawyer (1999) obtained ambiguous results when attempting to set apart these genera using DNA sequence data in cladistic analysis, and the most recent phylogenetic analysis of the family (Särkinen et al. 2013) suggests they are not monophyletic.

Here we deal with the new circumscription of the two genera under *Deprea* and the consequent new combinations of *Larnax* based on recent phylogenetic evidence that show *Deprea* and *Larnax* to be monophyletic when their species are merged (100% bootstrap support), where species, as *L. sachapapa* Hunz., are resolved nested within a group of *Deprea* species, or vice versa (Carrizo et al. submitted). The phylogenetic evidence is further supported by results from recent extensive field collecting and taxonomic work which have shown that characters utilized to distinguish the two genera are not useful, and increasing number of species are found to have intermediate features between the two genera (see Table 1, Deanna et al. 2014b; Carrizo et al. submitted). Consequently, this paper synonymises *Larnax* under *Deprea*, expands the morphological circumscription of *Deprea*, and transfers the remaining *Larnax* species to *Deprea*, presenting all 32 new combinations, and a list of all currently accepted 45 names in *Deprea*. Type specimens are also cited with their corresponding barcode number if it is available or their sheet number where it is not (HUT, QCA, QCNE, QUSF, and W).

Table 1. Characters used to delimit *Larnax* and *Deprea* according to Barboza and Hunziker (1994), Leiva González et al. (2005), and Sawyer (2005), contrasting with type species of each genera and species recently described having intermediate features (marked in bold).

Character	*Deprea orinocensis* *(type species)	*Larnax subtriflora* *(type species)	*Deprea zamorae* Barboza & S.Leiva*	*Larnax pedrazae* S.Leiva & Barboza	*Deprea* sp. nov. (Deanna & Leiva 138)
Corolla shape	Funnel-shaped	Stellate	**Narrowly campanulate**	Stellate	Campanulate
Ratio corolla lobes/ corolla tube	0.4–0.9	2.8–3.3	**(1–) 1.2–1.5**	**1–1.2**	**0.8–1**
Filament length**	Equal	Equal	**Equal or slightly unequal**	Equal	Equal
Filament base expansion**	Gradually expanded	Gradually expanded	**Abruptly expanded**	Abruptly expanded	Abruptly expanded
Filament adnation	4.1±0.7	1.3±0.3	**1.7±0.2**	1.5±0.2	1±0.2
Anther length	Equal	Subequal	Equal	**Slightly unequal**	Subequal
Mucron in anthers**	Absent	Absent	Absent	Absent	Present
Annular ring of hairs on the inner corolla**	Present	Present	Present	Absent	Absent
Pollen surface texture	Unknown	Dense, minutely microechinate	Widely sparse, minutely microechinate	Unknown	Unknown

* species included in the phylogenetic analysis (Carrizo et al. submitted)

** characters which overlap in type species

Systematics

Deprea Raf., Sylva Tellur. 57. 1838.

Larnax Miers, Ann. Mag. Nat. Hist., ser. 2 (4): 37. 1849, **syn. nov.**

Type. *Deprea orinocensis* (Kunth) Raf. (Lectotype species, designated in D'Arcy 1973 [1974]. Flora of Panama, Part IX. Family 170. Solanaceae. Ann. Missouri Bot. Gard. 60 (3): 624).

Erect shrubs to small trees with spreading branches, exceptionally herbs with axillary inflorescences generally with three to 15 flowers per node, calyx lobes minute or short, exceptionally long and narrowly triangular, corolla funnel-shaped to stellate, stamen petalum broadening gradually to abruptly in width basipetally, with or without auricles, anthers dorsifixed, generally exserted and mucronate, ovary glabrous, fruiting calyx always accrescent, enveloping the fleshy berry tightly or loosely.

Deprea abra-patriciae (S.Leiva & Barboza) S.Leiva & Deanna, comb. nov.

urn:lsid:ipni.org:names:77145416-1

Basionym: *Larnax abra-patriciae* S.Leiva & Barboza, Arnaldoa 16(1): 30. 2009.

Type. PERU. Amazonas: Bongará, Área de Conservación Privada Abra Patricia-Alto Nieva, km 364–365, carretera Fernando Belaunde Terry, 2250 m, 5°41'28.2"S, 77°48'41.1"W, 16 May 2009 (fl, fr), *S.Leiva 4561* (lectotype, designated in Deanna et al. 2014a, pg. 19: Leiva González & Barboza, Arnaldoa 16(1): 32. Fig. 1. 2009).

Deprea altomayoensis (S.Leiva & Quip.) Barboza & Deanna, comb. nov.

urn:lsid:ipni.org:names:77145417-1

Basionym: *Larnax altomayoensis* S.Leiva & Quip., Arnaldoa 15 (2): 199. 2009 [2008 publ. Jan 2009].

Type. PERU. San Martin: Rioja, Bosque de Protección de Alto Mayo, 1010 m, 5°40'11.5"S, 77°37'48.5"W, 24 July 2008 (fl, fr), *S.Leiva, M.Zapata & V.Quipuscoa 4480* (lectotype, designated in Deanna et al. 2014a, pg. 21: Leiva González, Pereyra Villanueva & Barboza, Arnaldoa 15(2): 200. Fig. 1. 2008).

Deprea andersonii **(N.W.Sawyer) Deanna & S.Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145432-1

Basionym: *Larnax andersonii* N.W.Sawyer, Novon 8 (1): 72. 1998.

Type. ECUADOR. Napo: km 25 of Hollín-Loreto road, finca entrance next to bridge over a quebrada in secondary pluvial forest, 950 m, 00°40'S, 77°40'W, 1 July 1995 (fl, fr), *N.W.Sawyer & M.Tirado 714* (holotype: MO n.v.; isotypes: CONN! [00054622], QCNE! [105520], US n.v.).

Deprea bongaraensis **(S.Leiva) Deanna & Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145418-1

Basionym: *Larnax bongaraensis* S.Leiva, Arnaldoa 13 (2): 292. 2006.

Type. PERU. Amazonas: Bongará, km 328–329, carretera Pomacochas-Nuevo Cajamarca, arriba de laguna Pomacochas, 2400 m, 5 Feb 2006 (fl, fr), *S.Leiva 3543* (lectotype, designated in Deanna et al. 2014a, pg. 21: Leiva González & Rodríguez Rodríguez, Arnaldoa 13(2): 293. Fig. 1. 2006).

Deprea chotanae **(S.Leiva, Pereyra & Barboza) S.Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145419-1

Basionym: *Larnax chotanae* S.Leiva, Pereyra & Barboza, Arnaldoa 15 (2): 203. 2008.

Type. PERU. Cajamarca: Chota, Bosque El Pargo, 3050 m, 30 Sep 2004 (fl, fr), *S.Leiva & J.Guevara 2883* (lectotype, designated in Deanna et al. 2014a, pg. 21: Leiva González, Pereyra Villanueva & Barboza, Arnaldoa 15(2): 204. Fig. 3. 2008).

Deprea darcyana **(N.W. Sawyer) Barboza & S.Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145433-1

Basionym: *Larnax darcyana* N.W.Sawyer, Novon 11 (4): 463. 2001.

Type. COLOMBIA. Huila: forest around Mehrenberg, road from Popayan, 2350 m, 6 July 1984 (fl, fr), *W.G.D'Arcy, A.Gentry, M.Monsalve & P.Silverstone 15626* (holotype: MO n.v.; isotype: CONN! [00054625]).

Deprea dilloniana **(S.Leiva, Quip. & N.W.Sawyer) Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145420-1

Basionym: *Larnax dilloniana* S.Leiva, Quip. & N.W.Sawyer, Arnaldoa 5 (1): 85. 1998.

Type. PERU. San Martín: Rioja, arriba del poblado Miraflores (ca. Nueva Cajamarca), 1260–1420 m, 3 Nov 1996 (fl, fr), *S.Leiva, M.Dillon, I.Sánchez, V.Quipuscoa & P.Lezama 1919* (lectotype, designated in Deanna et al. 2014a, pg. 21: CONN! [00066074]; isolectotypes: CONN! [00066075, 00168924!], CORD! [00004043], F! [2183234], HUT! [031930], MO! [05097641]).

Deprea grandiflora **(N.W.Sawyer & S.Leiva) Deanna & Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145434-1

Basionym: *Larnax grandiflora* N.W.Sawyer & S.Leiva, Novon 11 (4): 463. 2001.

Type. PERU. Cajamarca: San Ignacio, in forest along road from San Martín to El Chaupe, 1700 m, 05°11'S, 79°03'W, 26 June 1997 (fl, fr), *N.W.Sawyer 827* (holotype: NY!; isotypes: CONN! [00054628], MO n.v.).

Deprea harlingiana **(Hunz. & Barboza) S.Leiva & Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145435-1

Basionym: *Larnax harlingiana* Hunz. & Barboza, Kurtziana 24: 157. 1995.

Type. ECUADOR. Zamora-Chinchipe: Nudo de Sabanilla, E slope c. 5 km from pass on road Yanganá-Valladolid, 2700 m, 4 Apr 1985 (fl, fr), *G.Harling & L.Andersson 23646* (holotype: GB! [0008131]; isotypes: CORD! [00006738], QCA! [156713]).

Deprea hawkesii **(Hunz.) Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145436-1

Basionym: *Larnax hawkesii* Hunz., Kurtziana 10: 9. 1977.

Type. COLOMBIA. Huila: Carretera a La Plata, región de Moscopán, Santa Leticia, 2230 m, 21 July 1948 (fl, fr), *H.García-Barriga & J.C.Hawkes 12919* (holotype: US! [00385927]; isotypes: COL! [000004223, 000004224]).

***Deprea kann-rasmussenii* (S.Leiva & Quip.) S.Leiva & Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145437-1

Basionym: *Larnax kann-rasmussenii* S.Leiva & Quip., Arnaldoa 9 (1): 29. 2002 [2003].

Type. PERU. San Martín: Huallaga, entre La Ribera y Añazco Pueblo, 1850 m, 1 Sep 2000 (fl, fr), 06°84.705'S 77°48.440'W, *S.Leiva & V.Quipuscoa 2470* (lectotype, designated in Deanna et al. 2014a, pg. 23: HUT! [40031, two sheets]).

***Deprea longipedunculata* (S.Leiva, E.Rodr. & J.Campos) Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145438-1

Basionym: *Larnax longipedunculata* S.Leiva, E.Rodr. & J.Campos, Arnaldoa 5 (2): 194. 1998.

Type. PERU. Cajamarca: San Ignacio, Caserío La Bermeja, bosques de neblina La Bermeja, Dist. Tabaconas, 1830 m, 4 Jan 1998 (fl, fr), *S.Leiva, J.Campos & E.Rodríguez Rodríguez 2098* (lectotype, designated in Deanna et al. 2014a, pg. 25: CONN! [00055675]; isolectotypes: CORD! [00004044], F! [2198658], HUT! [031885], MO! [04906479]).

***Deprea lutea* (S.Leiva) Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145439-1

Basionym: *Larnax lutea* S.Leiva, Arnaldoa 4 (1): 19. 1996.

Type. PERU. Cajamarca: Chota, 1 km del poblado de Paraguay (Querocoto-La Granja), 2250 m, 7 Aug 1994 (fl, fr), *S.Leiva González, P.Chuna & J.Cadle 1385* (lectotype, designated in Deanna et al. 2014a, pg. 25: CORD! [00004045]; isolectotype: F! [2177616]).

***Deprea macasiana* (Deanna, S.Leiva & Barboza) Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145421-1

Basionym: *Larnax macasiana* Deanna, S.Leiva & Barboza, Phytotaxa 167 (1): 3. 2014.

Type. ECUADOR. Morona Santiago: Macas, Cerro San José del Quílamo, 500 m antes de la Virgen Purísima de Macas en el Quílamo, 1369 m, 78°08'19.3"W 02°17'45.4"S, 23 Jan 2013 (fl, fr), *R.Deanna & S.Leiva 111* (holotype: QUSF! [29472]; isotypes: CORD! [00006797, 00006799], HAO!, QUSF! [29480]).

Deprea maculatifolia **(E.Rodr. & S.Leiva) S.Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145422-1

Basionym: *Larnax maculatifolia* E.Rodr. & S.Leiva, Arnaldoa 9 (2): 102. 2003.

Type. PERU. Amazonas: Bagua, Imaza, Comunidad Aguaruna de Yamayakat, 390 m, 10 Jan 2001 (fl, fr), *E.Rodríguez Rodríguez, S.Leiva & R.Apanu 2384* (holotype: HUT! [38027]; isotypes: MO! [5763266], USM! [000899]).

Deprea nieva **(S.Leiva & N.W.Sawyer) Barboza & Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145440-1

Basionym: *Larnax nieva* S.Leiva & N.W.Sawyer, Arnaldoa 10 (1): 106. 2003.

Type. PERU. Amazonas: Bongará, km 384 carretera Nueva Cajamarca-Pomacochas (Florida), 2000 m, 05.41 S, 77.46 W, 12 June 1997 (fl, fr), *S.Leiva & N.W.Sawyer 2045* (lectotype, designated in Deanna et al. 2014a, pg. 25: Leiva González & Barboza, Arnaldoa 16(1): 32. Fig. 1. 2009).

Deprea parviflora **(N.W.Sawyer & S.Leiva) S.Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145441-1

Basionym: *Larnax parviflora* N.W.Sawyer & S.Leiva, Novon 11 (4): 466. 2001.

Type. PERU. Cajamarca: Cutervo, Bosque Cutervo, Parque Nacional Cutervo, NW border of Cordillera Tarros, Chorro Blanco sector, ca. 10 km WNW of San Andres de Cutervo, ca. 2650 m, 6°12'S, 78°46'W, 4 Nov 1990 (fl), *M.O.Dillon, I.Sanchez V. & J.Guevara B. 6141* (holotype: F! [2059067]; isotype: CONN! [00168928]).

Deprea pedrazae **(S.Leiva & Barboza) Deanna & S.Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145423-1

Basionym: *Larnax pedrazae* S.Leiva & Barboza, Arnaldoa 16 (2): 14. 2009.

Type. PERU. Amazonas: Bagua, La Peca, Puente El Arenal (ruta La Peca-El Arenal), 1170 m, 5°35'27.2"S, 78°24'20.8"W, 12 Oct 2009 (fl, fr), *S.Leiva, M.Zapata & G.Gayoso 4579* (lectotype, designated in Deanna et al. 2014a, pg. 25: Leiva González, Bravi & Barboza, Arnaldoa 16(2): 16. Fig. 1. 2009).

***Deprea peruviana* (Zahlbr.) S.Leiva & Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145424-1

Basionym: *Athenaea peruviana* Zahlbr., Ann. K. K. Naturhist. Hofmus. 7 (1–2): 7–8. 1892. *Larnax peruviana* (Zahlbr.) Hunz., Kurtziana 10: 9. 1977.

Type. [PERU. Cajamarca: Cutervo, La Ramada]. Tambillo, 29 July 1878 (fl, fr), *C. de Jelski 54* (lectotype, designated in Deanna et al. 2014a, pg. 25: W! [1891-0004186]).

***Deprea pilosa* (S.Leiva, E.Rodr. & J.Campos) Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145442-1

Basionym: *Larnax pilosa* S.Leiva, E.Rodr. & J.Campos, Arnaldoa 5 (2): 200. 1998.

Type. PERU. Cajamarca: San Ignacio, San José de Lourdes, Estrella del Oriente, borde de camino, 1600 m, 8 Jan 1998 (fl, fr), *S. Leiva, J. Campos & E. Rodríguez 2108* (lectotype, designated in Deanna et al. 2014a, pg. 26: CONN! [00051759]; isolectotypes: CORD! [00004047], F! [2198655], HUT! [031894], M! [M-0171580], MO! [04908631], NY! [00328792], USM! [000900]).

***Deprea pomacochaensis* (S.Leiva) Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145425-1

Basionym: *Larnax pomacochaensis* S.Leiva, Arnaldoa 13 (2): 299. 2006.

Type. PERU: Amazonas: Bongará, km 328–329 carretera Bongará-Nueva Cajamarca, arriba de laguna Pomacochas, 2400 m, 5 Feb 2006 (fl, fr), *S.Leiva 3542* (lectotype, designated in Deanna et al. 2014a, pg. 28: Leiva González & Rodríguez Rodríguez, Arnaldoa 13(2): 300. Fig. 5. 2006).

***Deprea psilophyta* (N.W.Sawyer) S.Leiva & Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145443-1

Basionym: *Larnax psilophyta* N.W.Sawyer, Novon 8 (1): 74. 1998.

Type. ECUADOR. Zamora-Chinchipe: Nudo de Sabanilla, pass on road from Yanganá to Valladolid, elfin forest and clearings, 2800–2900 m, 5 Apr 1985 (fl, fr), *G.W.Harling & L.Andersson 23724* (holotype: NY! [00312927]; isotype: QCA! [95-13/83]).

Deprea pumila **(S.Leiva, Barboza & Deanna) S.Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145426-1

Basionym: *Larnax pumila* S.Leiva, Barboza & Deanna, Phytotaxa 167 (1): 8. 2014.

Type. ECUADOR. Pastaza: Mera, rumbo hacia Río Anzú, sendero, 1340 m, 78°04'01.5"W, 01°25'31.6"S, 13 Nov 2011 (fl, fr), *C.I.Orozco, G.E.Barboza, A.Orejuela & S.Leiva 3890* (holotype: CORD! [0006758]; isotypes: COL!, QCA!).

Deprea purpurea **(S.Leiva) Barboza & S.Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145444-1

Basionym: *Larnax purpurea* S.Leiva, Arnaldoa 4 (1): 16. 1996.

Type. PERU. Cajamarca: San Ignacio, Ruta San Ignacio-El Chaupe, riachuelo, entre abundantes arbustos, 1510 m, 4 Jan 1995 (fl, fr), *S.Leiva G., P.Lezama A. & P.Chuna 1560* (lectotype, designated in Deanna et al. 2014a, pg. 29: CORD! [00004049]; isolectotypes: F! [2177617], HUT! [031931], MO! [05077371], NY! [00076787], USM! [000901]).

Deprea purpureocarpa **(S.Leiva, Deanna & Barboza) Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145427-1

Basionym: *Larnax purpureocarpa* S.Leiva, Deanna & Barboza, Phytotaxa 167 (1): 12. 2014.

Type. ECUADOR. Napo: carretera Cosanga-Baeza, 5.4 km al sur de Baeza, en borde de carretera, 1855 m, 77°52'20.2"W, 00°28'34.2"S, 25 Jan 2013 (fl, fr), *R.Deanna & S.Leiva 125* (holotype: QCNE! [0233491]; isotypes: CORD! [00006800], HAO!).

Deprea sachapapa **(Hunz.) S.Leiva & Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145445-1

Basionym: *Larnax sachapapa* Hunz., Kurtziana 10: 13–15. 1977.

Type. ECUADOR. Azuay: between Cruz Pamba and Loma de Canela, in region of Río Sadracay, tributary of Río Mehuir, north of Molleturo, in Cinchona forest, 2315–2500 m, 12 June 1943 (fl, fr), *J.A.Steyermark 52965* (holotype: VEN! [119697]; isotypes: CORD! [00006739], F! [1276519]).

Deprea sagasteguii **(S.Leiva, Quip. & N.W.Sawyer) Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145428-1

Basionym: *Larnax sagasteguii* S.Leiva, Quip. & N.W.Sawyer, Arnaldoa 5 (1): 86–89. 1998.

Type. PERU. Piura: Ayabaca, Cerro Aypate, 2800–2880 m, 4°42.94'S, 79°34.25'W, 23 May 1996 (fl, fr), *V.Quipuscoa S., O.Angulo Z. & R.Yahuana 601* (lectotype designated in Deanna et al. 2014a, pg. 30: HUT! [031934]).

Deprea sawyeriana **(S.Leiva, E.Rodr. & J.Campos) S. Leiva, comb. nov.**
urn:lsid:ipni.org:names:77145446-1

Basionym: *Larnax sawyeriana* S.Leiva, E.Rodr. & J.Campos, Arnaldoa 5 (2): 203. 1998.

Type. PERU. Cajamarca: San Ignacio, Caserío La Bermeja, bosques de neblina La Bermeja, Dist. Tabaconas, 1830 m, 4 Jan 1998 (fl, fr), *S.Leiva, J.Campos & E.Rodríguez 2097* (lectotype, designated in Deanna et al. 2014a, pg. 31: HUT! [031884]; isolectotypes: CONN! [00055668], CORD! [00004051], F! [2198659], MO! [04906480]).

Deprea schjellerupiae **(S.Leiva & Quip.) Barboza & Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145447-1

Basionym: *Larnax schjellerupiae* S.Leiva & Quip., Arnaldoa 9 (1): 32. 2002 [2003].

Type. PERU. San Martin: Huallaga, La Fila, entre Añazco Pueblo y Leguía, 2000 m, 10 Sep 2000 (fr), *S.Leiva & V.Quipuscoa 2479* (lectotype, designated in Deanna et al. 2014a, pg. 31: HUT! [40030]).

Deprea steyermarkii **(Hunz.) S.Leiva & Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145448-1

Basionym: *Larnax steyermarkii* Hunz., Kurtziana 10: 11. 1977.

Type. ECUADOR. Zamora: Arenillas, at junction of río Santa Bárbara and río Tintas, between Ca mpanas and Arenillas, southeast of El Pan, 2195 m, 13 July 1943 (fl, fr), *J.A.Steyermark 53535* (holotype: VEN! [119698]; isotypes: CORD!, F! [1276523, 1739588]).

***Deprea toledoana* (Barboza & S.Leiva) Barboza, comb. nov.**
urn:lsid:ipni.org:names:77145429-1

Basionym: *Larnax toledoana* Barboza & S.Leiva, Phytotaxa 167 (1): 16. 2014.

Type. ECUADOR. Zamora-Chinchipe: [Cerro Toledo], rumbo a Valladolid desde Yanganá, al costado de la ruta, 2690 m, 79°08'52.7"W, 04°26'30.7°S, 16 Nov 2011 (fl, fr), *C.I.Orozco, G.E.Barboza, A.Orejuela & S.Leiva 3936* (holotype: QCA!; isotypes: CORD! [00006769, 00006770, 00006771], COL!, HAO!).

***Deprea vasquezii* (S.Leiva, E.Rodr. & J.Campos) Deanna, comb. nov.**
urn:lsid:ipni.org:names:77145449-1

Basionym: *Larnax vasquezii* S.Leiva, E.Rodr. & J.Campos, Arnaldoa 5 (2): 206. 1998.

Type. PERU. Cajamarca: San Ignacio, Dist. San José de Lourdes, Estrella del Oriente, 1600 m, 04°50'S, 78°55'W, 8 Jan 1998 (fl, fr), *S.Leiva, J.Campos & E.Rodríguez 2109* (lectotype, designated in Deanna et al. 2014a, pg. 31: US! [00623565]; isolectotypes: CONN! [00055674], CORD! [00004050], F! [2198657], M! [M-0171574], MO! [04908632], NY! [00328793], US! [00623565], USM! [000902]).

After these new combinations, the genus *Deprea* includes the following 45 currently accepted species:

1. *Deprea abra-patriciae* (S.Leiva & Barboza) S.Leiva & Deanna
2. *Deprea altomayoensis* (S.Leiva & Quip.) Barboza & Deanna
3. *Deprea andersonii* (N.W.Sawyer) Deanna & S.Leiva
4. *Deprea bitteriana* (Werderm.) N.W.Sawyer & Benítez
5. *Deprea bongaraensis* (S.Leiva) Deanna & Barboza
6. *Deprea cardenasiana* Hunz.
7. *Deprea chotanae* (S.Leiva, Pereyra & Barboza) S.Leiva
8. *Deprea cuyacensis* (N.W.Sawyer & S.Leiva) S.Leiva & Lezama
9. *Deprea cyanocarpa* J.Garzon & C.I.Orozco
10. *Deprea darcyana* (N.W.Sawyer) Barboza & S.Leiva
11. *Deprea dilloniana* (S.Leiva, Quip. & N.W.Sawyer) Barboza
12. *Deprea ecuatoriana* Hunz. & Barboza
13. *Deprea glabra* (Standl.) Hunz.
14. *Deprea grandiflora* (N.W.Sawyer & S.Leiva) Deanna & Barboza
15. *Deprea harlingiana* (Hunz. & Barboza) S.Leiva & Deanna
16. *Deprea hawkesii* (Hunz.) Deanna
17. *Deprea kann-rasmussenii* (S.Leiva & Quip.) S.Leiva & Barboza

18. *Deprea longipedunculata* (S.Leiva, E.Rodr. & J.Campos) Barboza
19. *Deprea lutea* (S.Leiva) Deanna
20. *Deprea macasiana* (Deanna, S.Leiva & Barboza) Barboza
21. *Deprea maculatifolia* (E.Rodr. & S.Leiva) S.Leiva
22. *Deprea nieva* (S.Leiva & N.W.Sawyer) Barboza & Deanna
23. *Deprea nubicola* N.W.Sawyer
24. *Deprea orinocensis* (Kunth) Raf.
25. *Deprea oxapampensis* M.Cueva & I.Treviño
26. *Deprea paneroi* Benítez & M.Martínez
27. *Deprea parviflora* (N.W.Sawyer & S.Leiva) S.Leiva
28. *Deprea pedrazae* (S.Leiva & Barboza) Deanna & S.Leiva
29. *Deprea peruviana* (Zahlbr.) S.Leiva & Barboza
30. *Deprea pilosa* (S.Leiva, E.Rodr. & J.Campos) Deanna
31. *Deprea pomacochaensis* (S.Leiva) Barboza
32. *Deprea psilophyta* (N.W.Sawyer) S.Leiva & Deanna
33. *Deprea pumila* (S.Leiva, Barboza & Deanna) S.Leiva
34. *Deprea purpurea* (S.Leiva) Barboza & S.Leiva
35. *Deprea purpureocarpa* (S.Leiva, Deanna & Barboza) Deanna
36. *Deprea sachapapa* (Hunz.) S.Leiva & Deanna
37. *Deprea sagasteguii* (S.Leiva, Quip. & N.W.Sawyer) Barboza
38. *Deprea sawyeriana* (S.Leiva, E.Rodr. & J.Campos) S. Leiva
39. *Deprea schjellerupiae* (S.Leiva & Quip.) Barboza & Deanna
40. *Deprea steyermarkii* (Hunz.) S.Leiva & Barboza
41. *Deprea subtriflora* (Ruiz & Pav.) D'Arcy
42a. *Deprea sylvarum* (Standl. & C.V.Morton) Hunz. subsp. *sylvarum*
42b. *Deprea sylvarum* (Standl. & C.V.Morton) Hunz. subsp. *novogranatensis* N.W.Sawyer
43. *Deprea toledoana* (Barboza & S.Leiva) Barboza
44. *Deprea vasquezii* (S.Leiva, E.Rodr. & J.Campos) Deanna
45. *Deprea zamorae* Barboza & S.Leiva

Acknowledgements

The authors thank the IMBIV-CONICET (Cordoba, Argentina), the Universidad Nacional de Córdoba (Argentina), and the Universidad Privada Antenor Orrego (Trujillo, Peru) for their facilities to perform this study; the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET, PID 00552), Fondo para la Investigación Científica y Tecnológica (FONCYT, PICT 2775), and the Secretaría de Ciencia y Tecnología, Universidad Nacional de Córdoba (SECyT–UNC) from Argentina for funding the study. We are also indebted to the reviewers for valuable suggestions and comments on the manuscript. The first author would like to especially thank FONCYT and CONICET for the scholarships provided for the doctorate studies.

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